AMENDMENTS TO THE CLAIMS

Claim 1 (Previously Presented): A method of transmitting data through a communication link having a bandwidth using a plurality of communication connections, the method comprising the steps of:

establishing a worker object for each one of the communication connections;

distributing the data amongst the worker objects;

forming messages using the distributed data within each worker object and a parameter of the worker object;

delivering the messages formed within each worker object to an underlying layer of the plurality of communication connections so that each communication connection uses no more than a predetermined portion of the bandwidth; and

allocating the predetermined portion of the bandwidth to each of the plurality of communication connections and setting a message size parameter and a time between calls parameter for each of the plurality of communication connections.

Claim 2 (Cancelled).

Claim 3 (Previously Presented): The method of claim 1, wherein the step of allocating the predetermined portion of the bandwidth to each of the plurality of communication connections includes the step of allocating different predetermined portions of the bandwidth to two of the plurality of communication connections.

Claim 4 (Previously Presented): The method of claim 1, wherein the step of allocating the predetermined portion of the bandwidth to each of the plurality of communication connections includes the step of setting a time between calls parameter for each of the plurality of communication connections.

Claim 5 (Previously Presented): The method of claim 1, wherein the step of allocating the predetermined portion of the bandwidth to each of the plurality of communication connections includes the step of setting a message size parameter for each of the plurality of communication connections.

Claim 6 (Previously Presented): The method of claim 1, wherein the step of allocating the predetermined portion of the bandwidth to each of the plurality of communication connections includes the step of setting a sending buffer size for each of the plurality of communication connections.

Claim 7 (Cancelled).

Claim 8 (Original): The method of claim 1, wherein the step of establishing the worker object for each one of the plurality of communication connections includes the step of using the worker object to instantiate one of the plurality of communication connections.

Claim 9 (Original): The method of claim 1, further comprising the step of partitioning the data to form a plurality of partitioned data streams prior to distributing the data amongst the worker objects.

Claim 10 (Original): The method of claim 9, wherein the step of partitioning the data to form the plurality of partitioned data streams prior to distributing the data amongst the worker objects includes the step of partitioning the data based on a type of data.

Claim 11 (Original): The method of claim 9, wherein the step of partitioning the data to form the plurality of partitioned data streams includes the step of establishing a one-to-one correspondence between the plurality of partitioned data streams and the worker objects.

Claim 12 (Original): The method of claim 1, wherein the step of distributing the data amongst the worker objects includes the step of transferring a subset of the data to one of the worker objects in response to a request for data from the one worker object.

Claim 13 (Original): The method of claim 1, wherein the step of distributing the data amongst the worker objects includes the step of using a data transmission object.

Claim 14 (Previously Presented): The method of claim 1, wherein the step of forming the messages using the distributed data within each worker object includes the step of forming the messages within each worker object using a parameter of the worker object that controls the size of the messages.

Claim 15 (Original): The method of claim 1, wherein the step of delivering the messages formed within one of the worker objects includes the step of delivering the messages formed within the one worker object to the underlying layer based on a parameter of the one worker object that affects the rate at which the messages are delivered to the underlying layer.

Claim 16 (Original): The method of claim 15, wherein the step of delivering the messages formed within the one worker object to the underlying layer based on the parameter of the one worker object that affects the rate at which the messages are delivered to the underlying layer includes the step of using a time between calls parameter.

Claim 17 (Previously Presented): A system for transmitting data through a communication link leaving a bandwidth using a plurality of communication connections, the system comprising:

a communication object that distributes the data amongst the plurality of communication connections;

a plurality of worker objects, wherein each worker object is associated with one of the communication connections and forms messages using the data distributed to the communication connection associated with the worker object and a parameter of the worker object, and wherein each worker object delivers the messages formed within the worker object to an underlying layer of the plurality of communication connections so that each

communication connection uses no more than a predetermined portion of the bandwidth allocated to that communication connection;

wherein the communication object partitions the data to form a plurality of partitioned data streams prior to distributing the data amongst the plurality of communication connections; and

wherein the communication object establishes a one-to-one correspondence between the plurality of partitioned data streams and the plurality of worker objects.

Claim 18 (Original): The system of claim 17, wherein each of the plurality of worker objects is adapted to instantiate a communication connection.

Claims 19-21 (Cancelled).

Claim 22 (Original): The system of claim 17, wherein the communication object transfers a portion of the data to one of the plurality of worker objects in response to a request for data from the one worker object.

Claim 23 (Original): The system of claim 17, wherein the communication object is a data transmission object.

Claim 24 (Original): The system of claim 17, wherein each of the plurality of worker objects includes a set of uniquely configurable communication parameters.

Claim 25 (Original): The system of claim 24, wherein the set of uniquely configurable communication parameters includes a parameter that controls the size of the messages.

Claim 26 (Original): The system of claim 24, wherein the set of uniquely configurable communication parameters includes a parameter that controls the rate at which the messages are delivered to the underlying layer.

Claim 27 (Original): The system of claim 26, wherein the parameter that controls the rate at which the messages are delivered to the underlying layer is a time between calls parameter.

Claim 28 (Original): The system of claim 24, wherein the set of uniquely configurable communication parameters includes a parameter that controls a buffer size.

Claim 29 (Previously Presented): A system for transmitting data through a communication link using a plurality of communication connections, the system comprising:

a communication process that partitions the data to form a plurality of partitioned data streams;

a plurality of worker processes that each have a set of uniquely configurable communication parameters, wherein each of the plurality worker processes receives the partitioned data from a corresponding one of the plurality of partitioned data streams, forms messages using the partitioned data and a parameter of the worker process, and delivers the messages containing the partitioned data to an underlying layer of the plurality of communication connections based on the set of uniquely configurable communication parameters for the worker process; and

wherein there is a one-to-one correspondence between the plurality of worker processes, the plurality of partitioned data streams and the plurality of communication connections.

Claim 30 (Original): The system of claim 29, wherein the communication process is based on a data transmission object.

Claim 31 (Original): The system of claim 29, wherein the communication process partitions the data based on a type of data.

Claim 32 (Original): The system of claim 29, wherein each of the plurality of worker processes is based on a worker object.

Claim 33 (Cancelled).

Claim 34 (Original): The system of claim 29, wherein the set of uniquely configurable communication parameters includes a parameter that controls the rate at which the messages are delivered to the underlying layer.

Claim 35 (Original): The system of claim 34, wherein the parameter that controls the rate at which the messages are delivered to the underlying layer is a time between calls parameter.

Claim 36 (Original): The system of claim 29, wherein the set of uniquely configurable communication parameters includes a message size parameter.

Claim 37 (Original): The system of claim 29, wherein the set of uniquely configurable communication parameters includes a sending buffer size parameter.

Claim 38 (Previously Presented): A system for transmitting, data through a communication link, comprising:

a communication station having a processor and a memory communicatively coupled to the processor, wherein the processor is programmed to provide a plurality of worker objects that each, forms messages using one of a plurality of partitioned data streams and a parameter of the worker object, instantiates a separate communication connection through the communication link and wherein each of the plurality of worker objects includes a set of communication connection parameters that are uniquely configurable to determine the manner in which the messages are sent to an underlying layer of the communication link; and

wherein the set of communication connection parameters includes a time between calls parameter.

Claim 39 (Original): The system of claim 38, wherein the communication station is a sending communication gateway.

Claim 40 (Original): The system of claim 38. wherein the communication station is a receiving communication gateway.

Claim 41 (Original): The system of claim 38, wherein each of the separate communication connections uses a connection-oriented communication protocol.

Claim 42 (Cancelled).

Claim 43 (Original): The system of claim 38, wherein the set of communication connection parameters includes a message size parameter.

Claim 44 (Original): The system of claim 38, wherein the set of communication connection parameters includes a message size parameter and a time between calls parameter.

Claim 45 (Original): The system of claim 38, wherein the set of communication connection parameters includes a sending buffer size parameter.

Claim 46 (Original): The system of claim 38, wherein the processor is further programmed to cause messages containing a particular type of data to be sent through a particular one of the separate communication connections.

Claim 47 (Previously Presented): The system of claim 38, wherein the processor is further programmed to partition the data into the plurality of partitioned data streams based on type of data and to transfer partitioned data from one of the plurality of partitioned data streams to one of the plurality of worker objects.

Claim 48 (Original): The system of claim 47, wherein there is a one-to-one correspondence between the plurality of partitioned data streams, the plurality of worker objects and the separate communication connections.

Claim 49 (Previously Presented): A method of transmitting data through a communication link, comprising the steps of:

establishing a plurality of worker processes that each receives data, forms messages using one of the data and a parameter of the worker process, and sends the messages containing the data to an underlying layer of the communication link;

uniquely configuring a set of communication connection parameters uniquely associated with each of the worker processes, wherein the respective set of communication connection parameters includes a time between calls parameter for the worker process;

instantiating a separate communication connection for each of the worker processes; and

delivering the messages from one of the worker processes to the underlying layer for transmission through the communication link based on the set of communication connection parameters uniquely associated with the one worker process.

Claim 50 (Original): The method of claim 49, wherein the step of establishing the plurality of worker processes that each receives the data and that each sends the messages to the underlying layer of the communication link includes the step of assigning a particular type of data to each of the plurality of worker processes.

Claim 51 (Cancelled).

Claim 52 (Original): The method of claim 49, wherein the step of uniquely configuring the set of communication connection parameters uniquely associated with each of the worker processes includes the step of configuring a message size parameter for each of the worker processes.

Claim 53 (Original): The method of claim 49, wherein the step of uniquely configuring the set of communication connection parameters uniquely associated with each of the worker processes includes the steps of configuring a message size parameter for each of the worker processes and configuring a time between calls parameter for each of the worker processes.

Claim 54 (Original): The method of claim 49, wherein the step of uniquely configuring the set of communication connection parameters uniquely associated with each of the worker processes includes the step of configuring a sending buffer size parameter for each of the worker processes.

Claim 55 (Original): The method of claim 49, wherein the step of uniquely configuring the sets of communication connection parameters uniquely associated with each of the worker processes includes the step of configuring the sets of communication connection parameters to provide a reserved bandwidth for retransmissions.

Claim 56 (Original): The method of claim 49, wherein the step of delivering the messages from the one of the worker processes to the underlying layer for transmission through the communication link based on the set of communication connection parameters uniquely associated with the one worker process includes the step of using a timer function within the one worker process to control the rate at which the one worker process delivers the messages to the underlying layer.

Claim 57 (Previously Presented): The system of claim 17, wherein the communication process partitions the data base on a type of data.